

SIL'CHENKO, L.A.

Treating hypertension and stenocardia with tropacin. Vrach.delo
no.10:1061-1063 0 '58 (MIRA 11:11)

1. Poltavskoye meditsinskoye uchilishche.
(ANGINA PECTORIS)
(HYPERTENSION)
(ACETIC ACID)

SIL'CHENKO, L.A.; MIKHAYLOV, N.V.; REBINDER, P.A., akademik

Selecting the optimum time of concrete curing previous to hydrothermal treatment. Dokl. AN SSSR 162 no.6:1342-1345 Je '65. (MIRA 18:7)

1. Institut fizicheskoy khimii AN SSSR.

AKHINZHANOV, M., redaktor; AKHMETOV, Z., redaktor; BAIKHOZHIN, Kh., redaktor; SAYKIYEV, Kh., redaktor; SIL'CHENKO, M., redaktor; SMIRNOVA, N., redaktor; BERMESHTYEV, S.A., redaktor; IDRISOV, K., redaktor; BOROKINA, Z.P., tekhnicheskiy redaktor

[Life and works of Abai; a collection of articles] Abaidyn omiri men
tvorchestvosy. Zhizn' i tvorchestvo Abais; sbornik statei. Pod red.
M.Akhinzhanova i Z.Akhmetova. Alma-Ata, 1954. 269 p. [In Kazakh and
Russian] (MLRA 9:12)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut yazyka i
literatury.
(Kunanbaev, Abai, 1845-1904)

SAPARGALIYEV, G.S., kand. yurid.nauk; PAL'GOV, N.N., akad.; BCGATYREV, A.S.; AFANAS'YEV, A.V., prof.; BYKOV, B.A.; SHAKHMATOV, V.F., kand. istor. nauk; POKROVSKIY, S.N., akad.; SAVOS'KO, V.K., kand. istor. nauk; NUSUPBEKOV, A.N., kand. istor. nauk; BAISHEV, S.B., akad.; GOROKH-VODATSKIY, I.S., kand. istor. nauk; AKHMETOV, A., kand. istor. nauk; RAKHIMOV, A., kand. istor. nauk; PIVEN', N.F.; CHULANOV, G.Ch., doktor ekonom. nauk; BOROVSKIY, V.A., kand. ekonom. nauk; SYDYKOV, A.S., kand. pedagog. nauk; ZHANGEL'DIN, T., kand. filos. nauk; KARASAYEV, L.K.; KANAPIN, A.K., kand. istor. nauk; BELENNOV, M.D., kand. ekonom. nauk; KARYNBAEV, S.R., kand. med. nauk; AKHMETOV, K.A.; SMIRNOVA, N.S., doktor filolog. nauk; SIL'CHENKO, M.S., doktor filolog. nauk; YERZAKOVICH, B.G., kand. iskusstvovedcheskikh nauk; RYBAKOVA, N.; MUKHTAROV, A.I.; BCGATENKOVA, L.I.; KENDAKBAYEV, B.; SIRANOV, K.S.; SHVYDKO, Z.A., red.; MAMTSOVA, L.B., red.; ZLOBIN, M.V., tekhn. red.

[The Soviet Kazakh Socialist Republic] Kazakhskaia Sovetskaia Socialisticheskaiia Respublika. Alma-Ata, Kazakhskoe gos. izd-vo, 1960. 477 p. (MIRA 14:6)

1. Akademiya nauk Kaz.SSR (for Pal'gov, Pokrovskiy, Baishev)
2. Chlen-korrespondent Akademii nauk KazSSR (for Bykov, Smirnova, Sil'chenko)

(Kazakhstan)

SIL'CHANKO, M.S., akademik

Results of the scientific work of agencies of the Department of
Social Sciences in 1962 and future tasks. Vestn. AN Kazakh. SSR
19 no.4:84-89 Ap '63. (MIRA 16:5)

1. Akademik-sekretar' otdeleniya obshchestvennykh nauk AN KazSSR.
(Academy of Sciences of the Kazakh S.S.R.)

Method for the preparation of barium suspension for examination of the gastrointestinal tract. West. med. J. 1949, 135:187 (M 13 18:7) May-Ju 1950.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610003-0"

SIL'CHENKO, S. S.

Osnovka oborudovaniia mashinostroitel'nykh zavodov. Sverdlovsk, Mashgiz,
1947. 66 p. diagrs., tables.

Lubrication of the equipment of machine-building plants.

DLC: TJ1075.S58

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

SIL'CHENKO, S. S. and G. I. VOLVIN

Ekonomija metallov v mashinostroenii, Moskva, Mat' i giz, 1949. 713 (i.e.137)
p. diagr.

Bibliography: p. 137-138.

Saving of metals in machine-building.

DLC: TJ233.S5

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

Sluchan, I. S.

Gidravlicheskoe oborudovaniye metallorezarkhov stankov (Hydraulic equipment for metal-cutting machines). Moskva, Masniz, 1952. 122 p.

S. : Monthly List of Russian Acquisitions, Vol 6, No. 3, June 1953

SIL'CHENKO, Serafim Semenovich; GEDYK, Pavel Konstantinovich, inzhener;
DUGINA, N.A., tekhnicheskij redaktor.

[Miner mechanization in machine building; forging press and mecha-
nical assembling operations] Malaja mekhanizatsija v mashinostroenii;
kuznechno-pressovye i mekhanosborochnye operatsii. Pod red. P.K.
Gedyka. Moskva, Gos. nauchno-tehn. izd-vo mashinostreitel'noi
lit-ry, 1955. 352 p. (MLRA 9:4)
(Machinery--Construction)

25(2)

PHASE I BOOK EXPLOITATION SOV/2474

Sil'chenko, Serafim Semenovich

Gidravlicheskoye oborudovaniye metallorezhushchikh stankov; posobiye dlya slesarey-remontnikov (Hydraulic Equipment of Metal-cutting Machine Tools; a Manual for Repairmen) 2d. ed., enl. Moscow, Mashgiz, 1958. 169 p. 10,000 copies printed.

Reviewer: M. A. Tolstov, Engineer; Ed.: M.I. Lioznyanskiy, Engineer; Tech Ed.: N.P. Yermakov; Exec. Ed. (Ural-Siberian Division, Mashgiz): L.A. Kon'shina.

PURPOSE: This textbook is intended for mechanics, machine shop foremen, and machine-tool operators.

COVERAGE: This book was written to comply with the program of courses designed to raise the qualifications of personnel repairing metal-cutting machines. The author presents basic information on hydraulics, describes the working principles and operation of hydraulic drives of modern metal-cutting machines, discusses overhauling and adjustment of individual hydraulic assemblies, and basic design. Engineers M.I. Lioznyanskiy and M.A. Tolstoy contributed to this

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Hydraulic Equipment (Cont.)

SOV/2474

work. There are 12 references, all Soviet.

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AVAILABLE: Library of Congress

Card 4/4

GO/jb
11-2-59

SIL'CHENKO, Serafim Semenovich; VOROTNIKOVA, R.V., red.

[How best to save metal] Kak luchshe ekonomit' metall.
Voronezh, Voronezhskoe knizhnoe izd-vo, 1963. 42 p.
(MIRA 18:1)

MOLCHANOV, V.S. (Leningrad); SIL'CHENKO, T.N., [deceased] (Leningrad).

A case of glass solarization. Priroda 46 no.1:114-115 Ja '57.
(Ultraviolet rays) (MLRA 10:2)
(Glass painting and staining)

S/121/60/000/009/005/006
A004/A001

AUTHOR: Sil'chenko, T.S.

TITLE: A Device for the Machining of Spherical Surfaces

PERIODICAL: Stanki i Instrument, 1960, No. 9, pp. 38 - 39

TEXT. The author describes a device for the machining of spherical surfaces which was developed at the Voronezhskiy zavod imeni Kalinina (Voronezh Plant im. Kalinina) for the machining of rods of mechanical presses, having spherical heads of 400 mm in diameter. The circular motion of the cutting tool is effected by way of mechanical feed of the cross slide. In order to fit the device on the lathe, compound rest and tool post are removed, and the device, consisting of a toothed wheel and rack gear, is fastened on the lateral surface of the cross slide. The author gives a description of the operation of the device and points out that owing to the mechanical feed, the tool circles evenly, which results in a correct geometric shape of the spherical surface with a finish of the 6th or 7th class. If a 7th - 8th class finish is required, a grinding head is used equipped with a cup-shaped grinding disk. The author points out that also concave spherical surfaces can be machined. There are 3 figures.

Card 1/1

USSR/Medicine - Dysentery

FD-2322

Card 1/1 Pub 148 - 23/36

Author : Izralimskiy, A. S.; Sil'chenko, T. S.

Title : The microbiological and epidemiological characteristics of dysentery produced by Newcastle bacteria

Periodical : Zhur. mikro. epid. i immun. No 2, 64-68, Feb 1955

Abstract : Investigation of 96 strains of dysentery bacteria showed that all of them closely resembled Boyd-88 strains and strains that had been isolated earlier in Moscow. In accordance with the new USSR classification, they have been identified as belonging to the Newcastle subspecies of *B. Dysenteriae* Flexner. A high percentage of erroneous diagnoses (40.2%) had been made in cases of infection with Newcastle bacteria. Two tables.

Institution : Dnepropetrovsk Institute of Epidemiology, Microbiology, and Hygiene imeni N. F. Gamaleya

Submitted : February 15, 1954

GROMOV, A.S.; SIL'CHENKO, T.S.; PAFNUT'YEVA, G.V.

Vaccines and vaccination in control of dysentery. Zhur. mikrobiol. epid. i immun. no.5:14-17 My '55. (MLRA 8:7)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(DYSENTERY, BACILLIARY, prevention and control,
vacc.)

(VACCINES AND VACCINATION,
dysentery)

MD

Preparation of dry complement. T. S. Sil'chenko (N. B. Gamalei Inst. Epidemiol., Microbiol. and Hyg., Dnepropetrovsk). *Laboratornoe Delo* 1955, No. 6, 13-14. To 100 cc. of fresh pooled guinea-pig serum of known titer are added 4 g. of pure boric acid and 5 g. of Na₂SO₄. It is then dispensed into thick-walled 1-cc. ampuls and vacuum-dried in a refrigerating mixt. of NaCl and ice for 8 hrs. The drying is continued at room temp. for 15-18 hrs. The ampuls are sealed with the vacuum maintained at 100 mm. Moisture is 2%. When kept at room temp. the dried complement preserves its original activity for 20 months. In order to prep. a working diln. the content of one ampul is dissolved in 10 cc. of 35-37° saline. A. S. Mirkin

~~SIL'CHENKO, T. A. GROMOV, A. A.~~

Microbiological characteristics of Newcastle's dysentery bacillus
isolated in Dnepropetrovsk. Zhur.mikrobiol.epid. i imun. 28 no.4:
87-93 Ap '57. (MLRA 10:10)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i
gigiyeny.

(SHIGELLA PARADYSENTERIAS
biochem. & immunol. characteristics of various types)

GROMOV, A.S.; SIL'CHENKO, T.S.; PAFNUT'YEVA, G.V.

Immunological characteristics of *Shigella dysenteriae* strains isolated at the onset and in the terminal stages of disease; author's abstract. *Zhur.mikrobiol.epid. i immun.* 29 no.4:93-94 An '58.
(MIRA 11:4)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(*SHIGELLA DYSENTERIAE*,

immunol. aspects of strains isolated in early & late phases of die. (Rus)

SIL'CHENKO, T.S.

Comparative study of the intensity of immunity following subcutaneous and intraperitoneal injection of dysentery cultures and vaccines;
author's abstract. Zhur. mikrobiol., epid. i immun. 30 no.11:112 N '59.
(MIRA 13:3)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(IMMUNITY) (DYSENTERY) (VACCINATION)

SIL'CHENKO, T. S.

Cand Med Sci - (diss) "Experimental materials on the study of immunity against dysentery." Simferopol', 1961. 10 pp; (Ministry of Public Health Ukrainian SSR, Crimena State Medical Inst imeni I. V. Stalin); 200 copies; price not given; (KL, 10-61 sup, 226)

SIL'CHENKO, T.S.

Prolonged preservation of immunogenic properties of dysenterial bacteria dried by various methods. Zhur.mikrobiol.epid.i immun. 32 no.2:25-27 F '61.
(MIRA 14:6)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(SHIGELLA PARADYSENTERIAE)

SIL'CHENKO, T.S.; SPITSA, A.I.

Selection of dysentery microbes exhibiting a protracted retention of their immunogenic and antigenic properties. Zhur.mikrobiol., epid.i immun. 33 no.8:133 Ag '62. (MIRA 15:10)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(DYSENTERY)
(TIMAKOV, V.D.)
(KAGAN, G.IA.)

s/058/63/000/003/098/104
A059/A101

AUTHORS: Sil'chenko, V. A., Tkach, V. K.

TITLE: Use of the electron paramagnetic resonance for the selection of extremely sensitive working conditions of a setup for the measurement of dielectric losses by the method of grid currents

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 41, abstract 3Zh243
("Uch. zap. Khar'kovsk. un-t", 1962, v. 121, Tr. Radiofiz. fak.,
v. 5, 145 - 150)

TEXT: A device for the measurement of small variations of the dielectric losses at frequencies of about 25 Mc is described. The operation of the device is based on the dependence of the constant component of the generator grid current on the loading impedance in the grid circuit. The value of the equivalent loading impedance varies in the presence or in the case of variation of losses in the sample of the dielectric introduced into the coil of the generator circuit. Maximum sensitivity of the given measuring generator is reached at definite working conditions of the valve, and at a definite ratio between the

Card 1/2

Use of the electron paramagnetic resonance for the...

3/058/63/000/003/098/104
A059/A101

parameters of the valve and those of the generator grid circuit. For the calibration of the apparatus and its adjustment to maximum sensitivity, the method of loss imitation at the expense of the signal of electron paramagnetic resonance losses in a rock-salt solution is used.

I. Ivanov

[Abstracter's note: Complete translation]

Card 2/2

VOL'FSON, P.M.; SII'CHENKO, V.I.; FOMITSKIY, F.F., kand. tekhn. nauk

Evaluation of mining systems used in some Krivoy Rog Basin mines from the point of view of losses and the depletion of ores. Met. i gornorud. prom. no.1:48-51 Ja-F '64.

(MIRA 17:10)

SIL'CHENKO, V.N., vrach

Case of intestinal obstruction due to Meckel's diverticulum.
Zdrav.Turk. 2 no.6:38 N-D '58. (MIRA 16:3)

1. Iz Tashauzskoy oblastnoy bol'nitsy (glavnnyy vrach V.N.
Sil'chenko).
(INTESTINES—DIVERTICULA)

SIL'CHENKO, V.N.

Treatment of empyemas of the pleural cavity. Zdrav. Turk.
6 no. 3:32-33 My-Je '62. (MIRA 15:6)

1. Glavnnyy khirurg Tashauzskogo oblastnogo otdela zdravookhraneniya.
(EMPYEMA)

Min'vani, V. V.

"Praktika po Epidemiologii, Klinike, Terapii i Specificheskoi Prophylaxis"
Moskva, 1946

Klinicheskaya Meditsina, Vol 27, no 1, pp 85-90, 1949
S-3549

СЕВЕРНАЯ, 1.

"Antitularaemia Vaccination by El'bert's Cutaneous Method." Materialy 1-y obl.
Konferent. no Izuchen. Krayev. Vop. Epidemiol., Khm. i Profdakt.. Tulyaremit, Vronezh
1947

SIL'CHENKO, V.S.

"Effectiveness of Antitularaemia Vaccination by El'bert's Cutaneous Method."
Zhurn. Mikrobiol., Epidemiol. i Immunobiol. 1948, No. 1

SIL'CHENKO, V. S.

"Training of Students of the Voronezh Medial Institute in Sanitation Instruction."
Sov. Zdrav., No. 6, 1949. Voronezh. -:1949-.

58/49T85

SIL'CHENKO, V. S.

USSR/Medicine - Tularemia, Relapse Jan 49
Medicine - Tularemia, Complications and
Sequels

"The Problem of Tularemia Relapses," V. S.
Sil'chenko, Voronezh, 4 pp
"Klin Med" Vol XVII, No 1

Introduces brief case histories of ten
tularemia recurrences. These recurrences
developed less than a year after onset of
disease and were of bubonic or angionec-
tic-bubonic form of tularemia. Cases were intro-
duced to show that recurrences of tularemia
may be more frequent than expected. Also
58/49T85

USSR/Medicine - Tularemia, Relapse (Cont'd) Jan 49

Introduces a case history of a woman who a
generalized form of tularemia for 5 years before
the bubo appeared.

58/49T85

LIFSHITS, M. S.; SIL'CHENKO, V. S.

Late recurrence of tularemia. Klin. med., Moskva 29 no.7:69-71
July 1951. (CIML 20:11)

1. Prof. Lifshits. 2. Of the Department of Infectious
diseases, Voronezh Medical Institute (Head -- Prof. M.
S. Lifshits).

SILCHENKO, V. S.

"Effectiveness of Vaccination "against Tularemia," from the monograph
Effect of Vaccination Against Tularemia, 1953 p. 38

Translation D 568409

SIL'CHENKO, V. S.

Jun 53

USSR/Medicine - Tularemia

"The Problem of Reinoculation Subsequent to Antitularemia Inoculation," V. S. Sil'chenko

Zhur Mikro, Epid, i Immun, No 6, pp 47-50

As a result of the work of Gayskiy, who developed a dry live tularemia vaccine, and El'bert who developed a liquid live tularemia vaccine, protective inoculation against tularemia became possible. The prophylactic properties of live tularemia vaccines were investigated by Gayskiy, El'bert, Faybich, O. suf'yev, Mayskiy, Tinker, Puchkova, Altareva, and others. Mass inoculations against tularemia were initiated in the USSR in 1945-46. It has been established on the basis of reactions to tularin and to the vaccine itself) that no reinoculation is necessary for at least 4 years.

Trans. - M-144, 1 Feb 55

267T20

SIL'CHENKO, V.S.

Errors in diagnosis of tularemia and their causes. Klin. med., Moskva
31 no.6:50-53 June 1953. (CIML 25:1)

1. Of Voronezh Oblast Anti-Tularemia Station (Head Physician -- I. G. Khoroshev).

USSR/Medicine - Tularemia

FD-3324

Card 1/1 Pub. 148-20/24

Author : Sil'chenko, V. S.

Title : The history of vaccination against tularemia

Periodical : Zhur. mikro. epid. i immun. 10, 83-89, Oct 1955

Abstract : A review of past attempts and present achievements by both Soviet and non-Soviet immunologists in the field of tularemia vaccines, both live and killed, is presented. The work of N. A. Gayskiy in this field is the basis of the article. He developed a live tularemia vaccine which has been tested extensively and confers a four year immunity with 97 percent efficiency. The development and testing of other vaccines is also described. 39 Soviet references and 8 non-Soviet references are cited.

Institution : Voronezh Oblast Anti-Tularemia Station (Head Physician - I. G. Khoroshev)

Submitted : November 2, 1954

SIL'CHENKO, V.S.

Late psychoses in tularemia. Zhur.nevr. i psikh.55 no.10:775-780
'55. (MLRA 8:11)

1. Voronezhskaya oblastnaya protivotulyaremiynaya stantsiya
(glavnyy vrach I.G.Khoroshev)
(TULAREMIA, complications,
psychoses)
(PSYCHOSES, etiology and pathogenesis,
tularemia)

OISUF'YEV, N.G.; TSVETKOVA, Ye.M.; BORODIN, V.P.; KOROLEVA, A.P.; SIL'CHENKO,
V.S.; KHOROSHEV, I.G.; MYASNIKOV, Yu.A.; PERFIL'YEVA, Z.A.; KRATOKHVL'
N.I.; VAYSTIKH, M.A.; RAVDONIKAS, O.V.; BARANOVA, N.I.; ZIMINA, V.Ye.;
TORMASOVA, L.N.; USTIN-PETROVA, T.F.; AREF'YEV, S.S.; KONKINA, N.S.;
KUL'BA, A.P.; MAL'TSEVA, N.K.; SHELAPOVA, G.M.; SORINA, A.M.; BRA-
NITSKAYA, V.S.; PRUDNIKOVA, M.N.

Tularin from a vaccinal strain for epicutaneous use. Zhur. mikro-
biol. epid. i immun. 27 no.9:22-28 S '56. (MLRA 9:10)

1. Iz Instituta epidemiologii i mikrobiologii im. N.P. Gamelei AMN
SSSR i protivotularemnykh stantsiy Stalingradskoy, Voronezhskoy,
Tul'skoy, Plavskoy, Omskoy, Krasnodarskoy, Moskovskoy i Smolenskoy.
(TULAREMIA, diagnosis,
tularin epicutaneous test (Rus))

EXCERPTA MEDICA Sec 4 Vol 12/2 Med. Micro. Feb 59

519. EPIDEMIOLOGICAL AND CLINICAL FEATURES OF TULAREMIA IN
WATER-BORNE INFECTION (Russian text) - Silchenko V. S. Voronezh
- ZH. MIKROB. EPID. I IMMUNOBIOL. 1957, 6 (15-21) Graphs 2

Outbreaks of tularaemia occurred as a result of the use of water infected by
rodents, usually rats. The outbreaks were observed in the autumn-winter period,
when the rodents migrate to populated areas. Chakhava - Moscow (IV, 17)

SIL'CHENKO, V.S., kandidat meditsinskikh nauk

The 30th anniversary of the study of tularemia in the Soviet Union.
Sov.med. 21 no.3:135-138 Mr '57. (MLRA 10:?)

1. Iz Voronezhskoy oblastnoy sanitarno-epidemiologicheskoy stantsii
(glavnyy vrach A.A.Sheshenov)
(TULAREMIA
contribution of Russian physicians)

~~Mass study of the immunological effectiveness of vaccination against~~
tularemia. Zhur. mikrobiol. epid. i immun. 28 no. 4 1957 Ap '57.
(MIR 10:10)

1. Iz Voronezhskoy oblastnoy sanitarno-epidemicheskoy stantsii.
(TULAREMIA, prev. and control
vacc., effectiveness of intracutaneous admin.)

epidemiological and clinical characteristics of water-borne
tularemia. Zhur. sanitarno-epid. i immun. 26 no. 6:15-21 Je '57.
(MIRA 10:10)
L. Iz Voronezhskoy nauchnoy sanitarno-epidemiicheskoy
stantsii
(TULAREMIA, transmission,
water supply infestation (Rus))
(WATER SUPPLY
transm. of tularemia (Rus))

SIL'CHENKO, V.S.

▲ 30year study on tularemia in the Soviet Union. Zhur.mikrobiol.
epid. i immun. 28 no.10:35-41 S '57. (MIRA 10:12)

1. Iz Voronezhskoy oblastnoy sanitarno-epidemiologicheskoy stantsii
(TULAREMIA,
research in Russia (Rus))

OLSUF'YEV, N.G.; YEMEL'YANOVA, O.S.; UGLOVOY, G.P.; SIL'CHENKO, V.S.;
BORODIN, V.P.; SAMSONOVA, A.P.; KONKINA, N.S.; SHELANOVA, G.M.;
LEVACHEVA, Z.A.; TSAREVA, M.I.; ZYEINA, N.A.; LEZDEVA, T.F.

Result of mass use with human subjects of dry tularemia vaccine
prepared from restored Gaiskii No.15 and Emelianova No.155 strains.
Zhur.mikrobiol.epid. i immun. 29 no.3:52-57 Mr '58. (MIRA 11:4)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei MN SSSR,
Voronezhskoy, Stalingradskoy, Moskovskoy, Tul'skoy oblastnykh, Altayskoy
krayevoy sanitarno-epidemiologicheskikh stantsii i Omskogo instituta
epidemiologii i mikrobiologii.

(TULAREMIA, immunology,
vaccine, dry from Gaiskii's No.15 & Emelianova's No.155
strains, mass application (Rus)

SIL'CHENKO, V.S., kand.med.nauk

Problems of tularemia in surgical practice [with summary in English].
Khirurgiia 34 no.2:111-116 F '58. (MIRA 11:4)

1. Iz voronezhskoy oblastnoy protivotulyaremiynoy stantsii
(glavnnyy vrach I.G.Khoroshev)
(TULAREMIA
diag. & ther. (Rus))

SIL'YANOVA, V. S.

"The natural foci of infectious diseases in the Voronezh oblast." p. 16

Drsyntoye Soveshcheniye po parazitologicheskim problemam i
prirodnym boleznyam. 22-29 Oktjabrya 1959 . (Tenth Conference
on Parasitological Problems and Diseases with Natural Foci 22-29
October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences
USSR and Academy of Sciences USSR, No. 1 264pp.

OLSUF'YEV, N.G., prof.; RUDNEV, G.P., prof.; DUNAYEVA, T.N., kand.biolog. nauk; YEMEL'ANOVA, O.S., kand.biolog.nauk; MAYSKIY, I.N., prof.; MYASNIKOV, Yu.A.; SAVEL'Yeva, R.A., kand.med.nauk; SIL'CHEMKO, V.S., kand.med.nauk; MASHKOV, A.V., red.; BUL'DYAYEV, N.A., tekhn.red.

[Tularemia] Tularemia. Pod red. N.G.Olsuf'eva i G.P.Rudneva. Moskva, Gos.izd-vo med.lit-ry, 1960. 458 p.

(MIRA 14:4)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Olsuf'yev). 2. Deystvitol'nyy chlen Akademii meditsinskikh nauk SSSR (for Rudnev).

(TULAREMIA)

SIL'CHENKO, V.S.

Natural focus infections in Voronezh Province. Zhur. mikrobiol.
epid. i immun. 32 no. 5 15-18 My '61. (MIRA 14:6)

1. Iz Voronezhskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(VORONEZH PROVINCE—COMMUNICABLE DISEASES)

OLSUF'YEV, N.G.; YEMEL'ANOVA, O.S.; UGLOVOY, G.P.; SIL'CHENKO, V.S.; KHOROSHEV, I.G.; YEZHNOVA, Ye.N.; BESSONOVA, M.A.; VEDENEYEVA, Ye. V.; AREF'YEV, S.S.; SHELANOVA, G.M.; SORINA, A.M.; BORODIN, V.P.; KOROLEVA, A.P.; SUVOROVA, A.Ye.; ONIKHIMOVSKAYA, V.A.; STOLAROVA, A.D.; BYSTROVA, K.A.; REPINA, R.F.; MYASNIKOV, Yu.A.; LEVACHEVA, Z.A.; YEGIAZAROV, K.K.; RAVDONIKAS, O.V.; SARMANEYEV, A.P.

Optimal periods for testing skin reaction in subjects inoculated against tularemia with a dry live vaccine and vaccinal, reactogenic and immunogenic properties of this preparation. Zhur. mikrobiol. epid. i immun. 32 no.6:92-98 Je '61. (MIRA 15:5)

1. Iz otdela prirodnoochagovykh infektsiy Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, otdelov Osobo opasnykh infektsiy Voronezhskoy, Leningradskoy, Moskovskoy, Smolenskoy, Stalingradskoy, Tambovskoy, Tul'koy, oblastnykh sanitarno-epidemiologicheskikh stantsiy i mskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(TULAREMIA) (VACCINES)

SIL'CHENKO, V.S.

Work of the Voronezh Province Society of Epidemiologists, Micro-
biologists, and Infectious Disease Specialists in 1958-1961. Zhur.
mikrobiol.epid.i immun. 33 no.5:153-154 My '62. (MIRA 15:8)

(VORONEZH PROVINCE--EPIDEMIOLOGICAL SOCIETIES)

YEMEL'YANOVA, O.S.; RAVDONIKAS, O.V.; YEGOROVA, L.S.; PANINA, N.V.;
PILIPENKO, V.G.; RUDNEV, M.M.; SIL'CHENKO, V.S.; BESSONOVA, M.A.;
UL'YANOVA, N.I.; VEDENEYEVA, Ye.V.; BORODIN, V.P.; SAMSONOVA, A.P.;
MYASNIKOV, Yu.A.; LEVACHEVA, Z.A.

Approbation of an improved tularemia diagnosticum. Zhur.
mikrobiol., epid. i immun. 40 no.10:85-92 O '63.

(MIRA 17:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR, Omskogo instituta prirodnoochagovykh infektsiy,
Protivochumnogo instituta Kavkaza i Zakavkaz'ya, Voronezhskoy,
Leningradskoy, Volgogradskoy, Tul'skoy sanitarno-epidemiologicheskikh
stantsiy.

VIASYUK, P.A.; SIL'CHENKO, V.V.

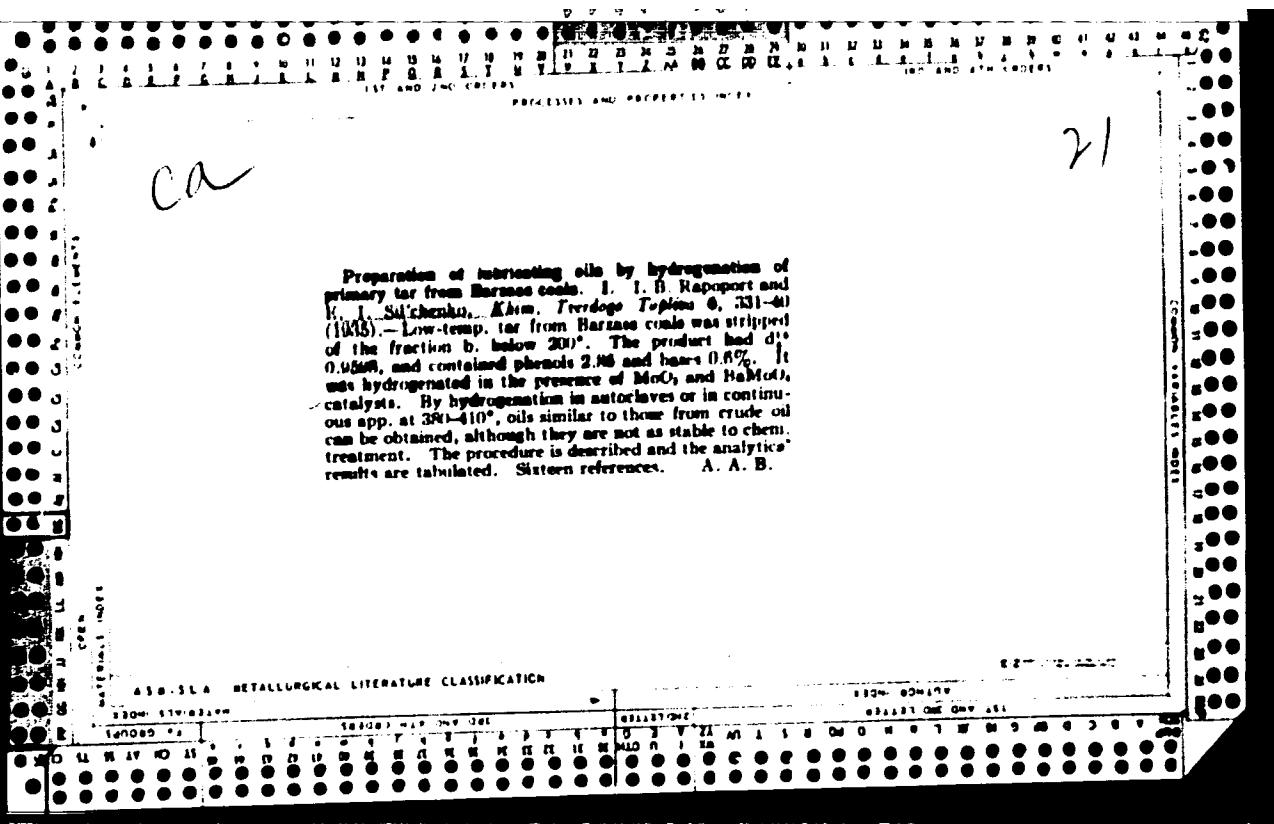
Effect of the presowing gamma irradiation of seeds on the anato-
mical structure of plants. Radiobiologiya 4 no.4:607-612 '64.
(MIRA 17:11)

1. Institut fiziologii rasteniy AM UkrSSR, Kiyev.

VIASYUK, P.A.; SILECHENKO, V. V.

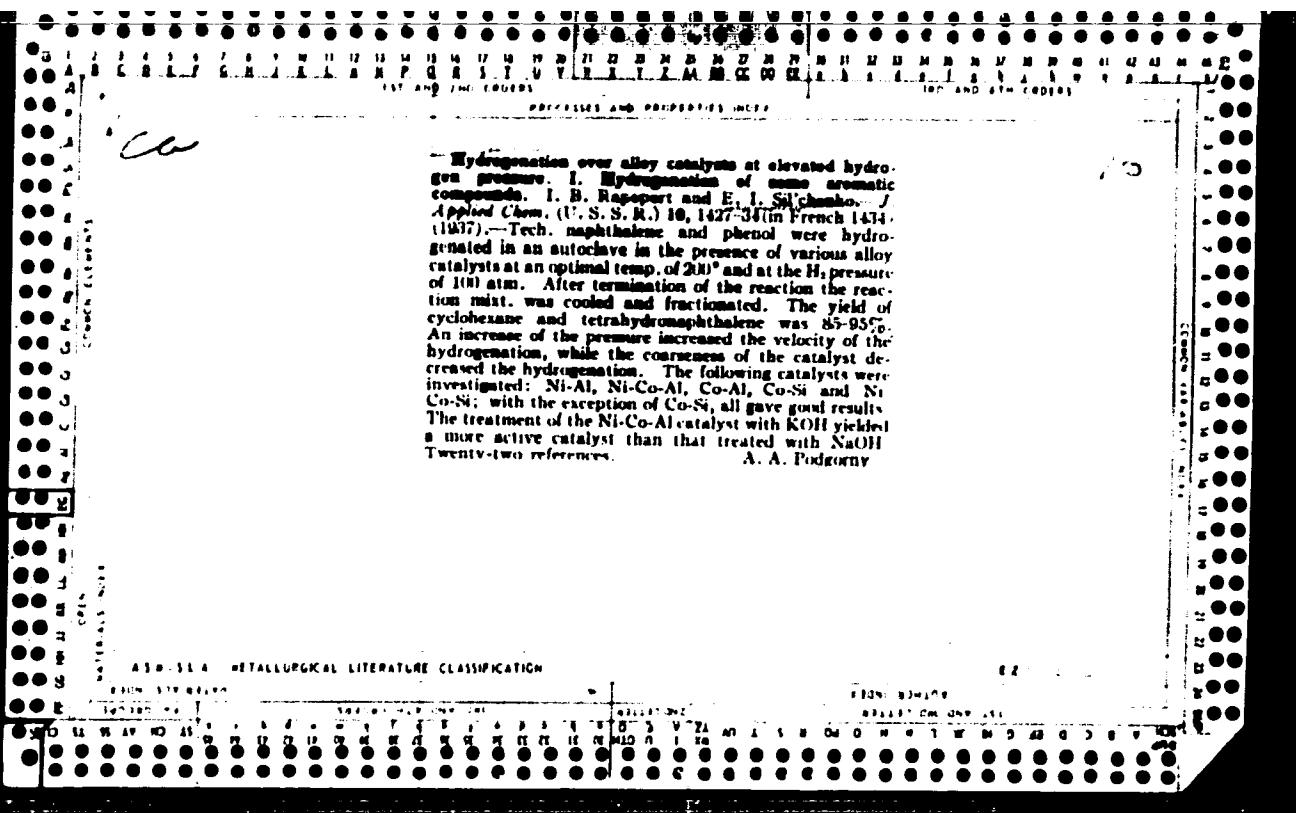
Effect of ionizing radiation on the size of nuclei of the assimilating tissue of the leaf. Dokl. AN SSSR 155 no. 3:668-669 Mr '64.
(MIRA 17:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii rasteniy AN UkrSSSR. 2. AN UkrSSSR (for Viasyuk).



Preparation of lubricating oils by hydrogenation of primary tars. II. I. B. Rapoport and I. I. Salkhankin. *Vestn. Tsvetnoy Metalloobrabotki*, v. 1, no. 4, 1969. The use of selective solvents yields oils of very high quality from sapropelic and sapropelitic humus formations and permits the separation of a group of compounds. The rectified oils are of better quality than solvents, low percentage of ppx, higher I and lower I₂ than exist oils. High-boiling fractions of barren primary humus tars also contain a large amt. of aromatic compounds, and selective solvents of the type of CH_3NO_2 have no effect on them. The oils obtained by hydrogenation of humus tars are of lower quality (high I₂ and ppx.). Treatment with 30% H_2SO_4 (by wt. of distillate) or destructive hydrogenation does not yield good lubricating oil, but the second treatment yields somewhat better oil than the first. Polymerization with consecutive hydrogenation or destructive hydrogenation is the only good method for prep of oils. Eighteen references. A. A. Poltorov

22



Masses of formation and of evolution of anhydrous aqueous solutions of some salts. A. S. Fedorov and G. P. Sutchanov. *Voprosy Khim. Zhir.* 12, 53 (1937).—Experiments were made with the following salts: KCl , KBr , KNO_3 , $NaCl$, NH_4Cl , NH_4NO_3 , $NaNO_3$, $BaCl_2 \cdot 2H_2O$, $CuCl_2 \cdot 2H_2O$, $CuSO_4 \cdot 5H_2O$ and $ZnSO_4 \cdot 7H_2O$. For the first 6 salts, the heat effect as a function of diln. is characterized by (1) a sharp absorption of heat up to the formation of a salt. soln. and by (2) a sharp absorption of heat which lasts during the gradual diln. of the salt. soln. For the last 4 salts, the course of the heat effect as a function of diln. is characterized as follows: (1) sharp elimination of heat up to the formation of the anhyd. salt, (2) absorption of heat until a salt. soln. is formed, and (3) gradual elimination of heat during the diln. of the salt. soln.

H. Z. Kausch

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550610003-0"

PROCESSES AND PROPERTIES

The reactions carried out over skeleton catalysts at 300-400°. R. I. Silchenko, *J. Applied Chem. U.S.S.R.* 14, 621 (in French, 427) (1961). (1) Rapoport and Silchenko, *C. A.* 52, 1688. C_6H_6 , PhMe and $\text{C}_6\text{H}_5\text{Me}$ were hydrogenated under ordinary pressure and under H_2 pressure in the presence of the Ni-Cu-Al catalyst at 180-200°. Hydrogenation without pressure required repetition of the process (2-3 times) for completeness, but under pressure the reaction was complete in 30 min. The methylcyclohexane (I) obtained and devalin (Du Pont) (II) were treated at 300-400° at the usual pressure. Without H_2 , I gives CH_4 and C_6H_6 ; II gives CH_4 homologs, low-boiling aromatic hydrocarbons and naphthalene. In the presence of H_2 , I gives CH_4 ; II gives none of the above products. The alloy catalysts promoted dehydrogenation and decompos. at 300-400°. The presence of H_2 considerably retarded dehydrogenation but not decompos., but the H_2 under high pressure completely eliminated both re-

actions; probably under this condition isomerization took place (in the case of devalin). Therefore, the alloy catalysts are very similar to catalysts prtd. on asbestos or charcoal.

A. A. Postovny

ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION

CHERENKHOV

Hydrogenation of Cherenkov Basin coal. V. I. Karzhev
and L. I. Sil'chenko. Trudy Vsesoyuz. Nauch.-Tekhnicheskogo
Instituta Zhdkogo Topliva i Gaza (VNIGGI), 3-45
(1943). — A detailed report on the semimustrial hydrogena-
tion runs with the sub-bituminous Cherenkov Basin coal
during 1941-1948. W. M. Sternberg

SIL'CHENKO, E. L.

Hydrogenation of adiponitrile to hexamethylene diamine.

E. L. Sil'chenko and L. G. Krolli; Trudy Vsesoyuz.
Nauchno-Issledovatel'skogo Instituta Toplits i Gasev
(VNIGI), 1, 133-40 (1949).—Adiponitrile can be hydro-
genated in the presence of 6% of fused or pptd. Ni-Pe-
Mg-Al catalyst, in the presence of NH₃ + H with a yield of 35-
70% based on adiponitrile. The optimum temp. is
higher than shown in U.S. 2,168,150-152; 2,168,183 (C.A.
33, 8211¹⁻²) namely 170-90°. W. M. Sternber

SIL'CHENKO, E.F.

✓ 4510. SOME PROBLEMS OF VAPOR PHASE HYDROGENATION OF AROMATIZED FEED
STOCKS. II. Sil'chenko, E.I., Shavelina, N.Y. and Grachko, D.L. (trud. Vsesoyuz. nauch.-issled. Inst. Iskust. zhid. Topliva i Gaza (Proc. All Union. Sci.-Res. Inst. Synthetic Liquid Fuel and Gas), 1954, (6), 46-51; abstr. in Chem. Abstr., 1957, vol. 51, 10039, 10040). The vapour phase hydrogenation of highly aromatized gas oils over a tungsten-nickel catalyst was studied to determine the variables for the case that different groups of aromatic hydrocarbons are present simultaneously. Two and three ring compounds represented about 82% of the total aromatic hydrocarbons. The three ring aromatic hydrocarbons were found to hydrogenate about forty times faster than the two ring compounds. Hydrogenation of polycyclic compounds

4

4671

benzene aromatic rings consiste in consecutive hydrogenation of the rings. very

my ang

SULIMOV, A.D.; KARZHEV, V.I.; ZHUKHOVSKAYA, T.V.; OLEVSKIY, V.M.; VENDEL'SHTEYN,
Ye.O.; SIL'CHENKO, Ye.I.; SHAVOLINA, N.V.; VOYTEKHOV, A.A.

Producing the raw material for synthetic fibers using petroleum products.
Khim.i tekhn. no.1:33-43 Ja '56. (MLRA 9:?)
(Petroleum) (Fibers)

SIL'CHENKO, E.I.

7
Chem
6

Effect of oxygen- and nitrogen-containing compounds on the rate of hydrogenation of aromatic hydrocarbons. V. I.

Karzhev, D. I. Orochko, R. I. Sil'chenko, and N. V. Shav-

clina. *Khim. i Teknol. Topiva i Pechi* 1938, No. 12, 29-32.

Hydrogenation was carried out under 300 atm. H₂ with WO₃-Ni catalyst at 300-400° in a continuous-fed app.

Addn. of phenols to mixts. of aromatic hydrocarbons and

heterocyclic compds. had no effect on the rate of hydroge-

nation. The degree of conversion of hydrocarbons at 320°

decreased from 68% to 23% and that of phenol from 80% to

20% in the presence of 7 wt.-% pyridine. Under these con-

ditions the conversion of pyridine was 80-85%.

When the temp. was raised to 400°, the conversion of pyridine was

99%, hydrocarbons 68%, phenol 80%. Conversion of ben-

zene at 300° fell, resp., to 72% and 80% in the presence of

1.0% and 6% pyridine. At 300° and 340° the conversion of

benzene contg. 4% hydroquinone, resp., decreased by 63%

and 70%.

A. E. Ketloby

DM

U. S. Res. Inst. Petroleum Industry

8/081/63/000/004/005/051
B102/B186

AUTHORS: Shavolina, N. V., Orochko, D. I., Sil'chenko, Ye. I.

TITLE: Some problems of macroscopic kinetics of hydrogenation of aromatic hydrocarbons in flowing operation

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 78-79, abstract 4B515 (Tr. Vses. n.-i. in-t po pererabotke nefti i gaza i polucheniyu iskusstv. zhidk. topliva, no. 8, 1959, 4-19)

TEXT: In the case of small reaction rates toluene hydrogenation may be formally described by the equation of pseudomonomolecular inhibiting reactions. With high rates the hydrodynamic conditions of the experiment have an effect on the depth of transformation of the crude. A reduction in grain size of the industrial W-Ni catalyst (Cat) on the carrier causes an increase in the macroscopic rate of C_6H_6 hydrogenation, which indicates the inhibiting effect of the diffusion of reagents in the Cat pores. Inhibition is particularly intense in the first stages of hydrogenation, when the surface reaction rate is high. The mean effectiveness of the internal surface of industrial Cat (tablets 10 mm in diam, 10 mm in height)

Card 1/2

AUTHORS:

15 4100 1583
11.9100

TITLE:

Zherdeva, L.G., Karzhev, V.I., Silichenko, Ye.I.,
Detusheva, E.P., Robozheva, Ye.V., Sidlyaronok, F.G.,
Lebedeva, N.M.
Isomerization of hydrocarbons from petroleum paraffin
waxes33586
S/204/61/001/005/004/008
E075/E484

PERIODICAL: Neftekhimiya, v.1, no.5, 1961, 639-647

TEXT: Results are given of investigation into the isomerization of solid paraffin waxes separated from high-sulphur crudes in refineries. 98.6% of the waxes boiled between 350 and 450°C. Their melting point was 51°C, sulphur content 0.03% and oil content 2%. The waxes were typical commercial waxes with relatively high oil content. Isomerization was conducted in a laboratory flow apparatus under hydrogen pressure. Molten wax at 100°C mixed with hydrogen was fed into the reactor. The reactor temperature ranged from 390 to 430°C. Industrial experiments, 3% wt platinum catalyst was used. In some of the experiments, 3% wt benzene was added to the wax to elucidate the influence of aromatic hydrocarbons on the processes of chain

Card 110

33586
S/204/61/001/005/004/008
E075/E484

Isomerization of hydrocarbons . . .

rupture and isomerization. Table 1 gives optimum reaction conditions together with some properties of the products. The presence in the products of isoparaffins is shown by the fact that a considerable lowering of their solidification point occurs after treatment with urea. Three fractions of the products were selectively dewaxed and clay-treated. Yields of the dewaxed oils varied from 82 to 75%, for the fractions boiling between 300 and 350°C, to 38% for the fractions boiling between 400 and 450°C. Solidification temperature for all dewaxed oils varied between -30 and -34°C. The wax separated during dewaxing contained about 90% urea adductable material and therefore is suitable for adding to the feedstock. Isomerization of wax of m.pt. 58 to 60°C gives large quantities of paraffins boiling between 350 to 450°C, which have a special interest for oxidation to fatty alcohols and acids. Oils solidifying below -40°C were produced by a two-step dewaxing, the second step consisting of urea treatment. The oils have relatively low viscosities (3.5 to 10.1 cs at 50°C and 2.5 to 3.4 cs at 100°C) and high viscosity indices (115 to 142). Viscosity gravity constants of the oils are below 0.77; densities lower than

Card 2/6 ✓

33586
S/204/61/001/005/004/008
E075/E484

Isomerization of hydrocarbons . . .

0.83 and refractive index n_{D}^{20} less than 1.4660. It is concluded that the oils consist of highly isomerized paraffinic hydrocarbons. The content of aromatic hydrocarbons in the oils varies from 8 to 12%. It is thought that they are mainly homologues of naphthalene. The oils obtained in the experiments in the presence of benzene have almost no resins, whereas the other oils contain 0.5 to 0.7% resins and are somewhat darker. The aromatic hydrocarbons improve oxidation stability of the oils as measured by sludge formation and acid value after testing by method VTI. More viscous oils (SAE 10) were obtained by adding 2% Acryloid 150 and polymethacrylate "D" (obtained in VNII NP) to the oils. The viscosity index is thus increased to 182 - 187. It is concluded that the isomerization constitutes a possible commercial process for the production of lubricating oils with high viscosity indices. There are 10 tables and 17 references: 5 Soviet-bloc and 12 non-Soviet-bloc. The four most recent references to English language publications read as follows: Ref.8: P. Schenk, A.B.H.Varvorn, H.I.Waterman, A.B.R.Weber. J. Inst. Petrol., v.42, 1956, 205. Ref.9: E.L.Breimer, H.I.Waterman, A.B.R.Weber.

Card 3/6 ✓

Isomerization of hydrocarbons . . .

33586
S/204/61/001/005/004/008
E075/E484

J. Inst. Petrol., v.43, 1957, 407. Ref. 10: Brit. Pat. J., 66027, 28 March 1955; Ref. 11: I.W. Gibson, G.M. Good, G. Holzman, Industr. and Engng. Chem., v.37, no.16, 1959, 16.

ASSOCIATION. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti, gaza i polucheniyu iskusstvennogo zhidkogo topliva VNII NP, g. Moskva (All Union Scientific Research Institute for Oil and Gas Refining and the Production of Synthetic Liquid Fuel VNII NP, Moscow) ✓

SUBMITTED: July 28, 1961

Card 4/64

KARZHEV, V.I.; SIL'CHENKO, Ye.I.; GONCHAROVA, N.V.; SVIRINA, V.P.;
GOYKHMAN, G.L.

Activity of phosphoric acid catalyst pellets. Khim.i tekhnopl.i
masel 8 no.8:19-23 Ag '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Petroleum—Refining) (Catalysis) (Phosphoric acid)

ACCESSION NR: AP4039763

S/0065/64/000/006/0024/0028

AUTHOR: Karzhev, V. I.; Sil'chenko, Ye. I.; Concharova, N. V.;
Svirina, V. P.; Lebedeva, A. M.

TITLE: Separation of aromatic hydrocarbons by means of complexes

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1964, 24-28

TOPIC TAGS: xylene, p-xylene, m-xylene, antimony(III) chloride,
p-xylene separation

ABSTRACT: A study has been made of the separation of p-xylene by means of complex formation with $SbCl_3$ from a mixture of C_8 aromatic hydrocarbons produced in the aromatization of gasoline fractions. The principal purpose was to determine the maximum percentage recovery of p-xylene obtainable. The purity of the isolated p-xylene was also studied. Xylenes, synthetic mixtures of pure p- and m-xylene, and the 136-140°C xylene fraction produced at the Novokuybyshevskiy Refinery were used. $SbCl_3$ was dissolved in the

Card 1/3

ACCESSION NR: AP4039763

hydrocarbon mixture at 60-70°C. The solution was cooled to a pre-determined temperature, and a $SbCl_3 \cdot C_6H_4(CH_3)_2$ crystal seed (mp, 56°C) was added. After standing for one hour, the precipitated crystalline complex was filtered off and thermally decomposed at 136-144°C. The hydrocarbons were isolated by distillation. Optimum conditions for various stated initial compositions are given in tables. It was concluded that separation of highly concentrated p-xylene is best conducted in a continuous equipment in two or three stages, depending on the starting-material composition, the complex being decomposed between the stages. In this case, 94-96% p-xylene is produced after the last stage. The $SbCl_3$ can be repeatedly regenerated. The mother liquor can be returned to the first stage and m-xylene can be separated from it by complex formation with $SbCl_3$ under different conditions. This research was done at the All-Union Scientific Research Institute of the Petroleum Industry. Orig. art. has: 5 tables and 1 figure.

Card 2/3

ACCESSION NR: AP4039763

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 24Jun54

ENCL: 00

SUB CODE: CC

NO REF SOV: 003

OTHER: 003

Card 3/3

KARZHEV, V.I.; SIL'CHENKO, Ye.I.; ROBOZHEVA, Ye.V.; LEBEDEVA, A.M.

Transformations of high-boiling paraffin hydrocarbons under the
conditions of hydrocracking. Khim. i tekhn. topl. i masel 10
no.11:4-9 N '65. (MIRA 1961)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

MINENKOV, A.N., inzh.; SIL'CHENKOVA, E.P., inzh.

Accounting system based on forms for the output and wages at
the Moscow Computer and Analyzer Plant. Mekh.i avtom.proizv.
16 no.8:44-45 Ag '62. (MIRA 15:9)
(Moscow--Calculating machines--Accounting)

FEYDEK, Valeriya Andreyevna; SHAFRANOVSKIY, K.I., red.; SIL'CHENKOVA, V.V., red.

[Feodosii Nikolaevich Chernyshev; bibliographic index and materials for his biography] Feodosii Nikolaevich Chernyshev; bibliograficheskii ukazatel' i materialy k biografii. Sost. V.A.Feidr. Pod red. K.I.Shafranovskogo. Vstup. ocherk D.V.Nalivkina. Leningrad, 1961. 347 p. (MIRA 15:3)

1. Akademiya nauk SSSR. Biblioteka.
(Chernyshev, Feodosii Nikolaevich, 1856-1914)
(Bibliography--Geology)

1. SIR'CHEN, A. T.
2. USSR (600)
4. Sunflowers
7. Obtaining high yields of sunflowers on the Krushchev Collective Farm (Semiluki District, Voronezh province), Dist. sel'khoz., No. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

11' MAYOK, Z.P.

Soviet sunflower seeds without thinnings. Kursk.-zhir. prov. 25
no. 11-7-1961. (MIRA 12:7)

1. Voronezhskaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta kultury.

(Sunflowers)

2212,

Participation in management of economic enterprises.

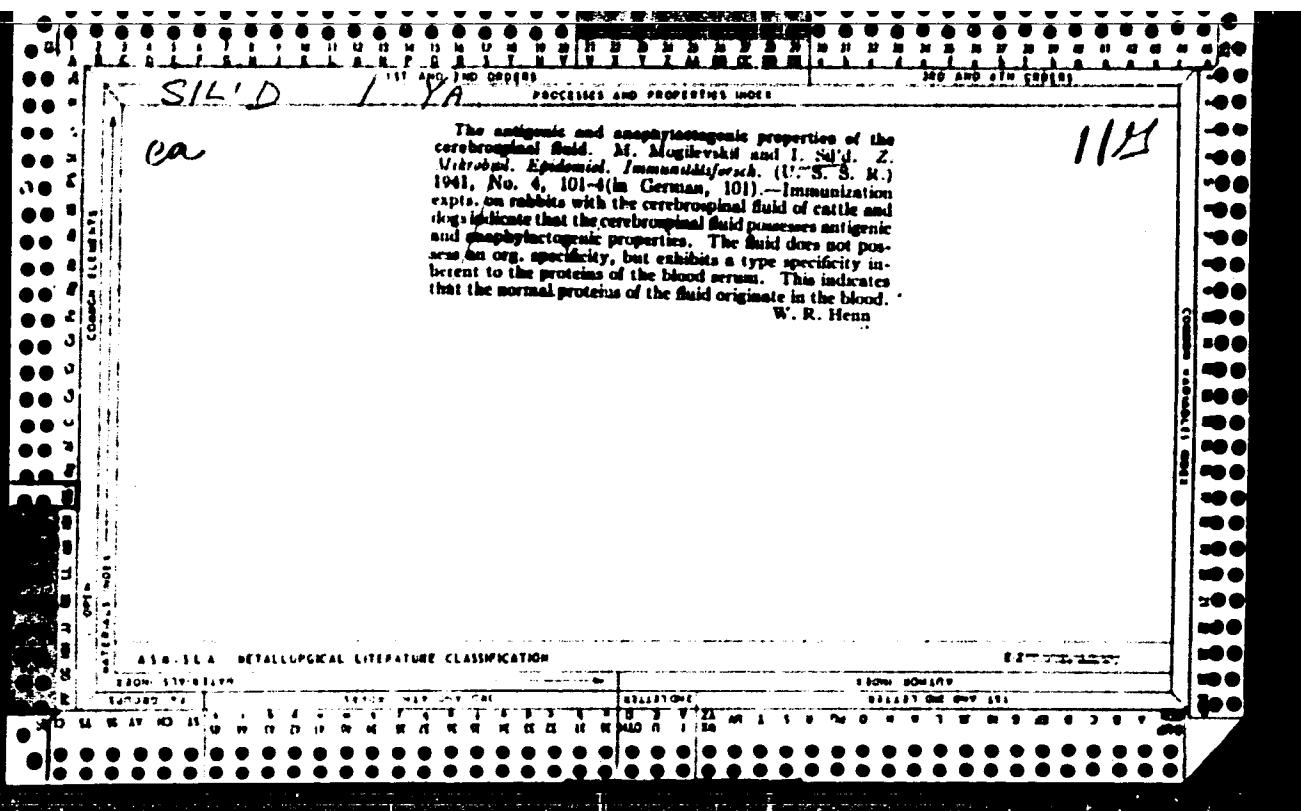
... 1985 (ECONOMIC STRUCTURE) (Journal, Yugoslavia) Vol. 4, no. 4/7, June/July 1985

3. Financial Crisis of East European Accessions(MAI) Vol. 7, No. 5, 1958

SIL'D . . . YA . . .

The effect of muscular work on the glutathione content
of the blood. Yu. M. Helfter, L. Ya. Sil'd, and T. A.
Vasil'kova. *J. Physiol. (U. S. S. R.)* 24, 111-15 in Ger-
man, 115 (1938).—Various types of muscular work give
a slight but definite increase in the reduced and total
glutathione in venous blood. S. A. Karjala

414-514 METALLURGICAL LITERATURE CLASSIFICATION



CA

SIL'D 1. Ya.

Study of growth factors of *Mycobacterium tuberculosis* in preparation of tuberculins. M. A. Linnikova and I. V. Sil'd (Leningrad Vaccine & Serum Research Inst.). Problemy Tuberk. 1951, No. 1, 44-8. Addn. of vitamins A and E to meat-peptone-glycerol cultures retards or stops growth. Vitamin B₁, B₂, C, D, and PP have no effect. Addn. of yeast autolyzate stimulates the growth without morphological change in the bacteria. Tuberculins made from culture filtrates on meat-peptone-glycerol media with added vitamins B₁, B₂, C, and PP are either equal to standards or are slightly substandard in activity; addn. of yeast autolyzates generally gives superstandard tuberculins; the recommended amt. of autolyzate is 10% (by N content). G. M. K.

TYURI, V.I. [Tur', V.I.], S. I. S. [Sils, M.]

Virulence of pyrazinamide-resistant and catalase-negative strains of
mycobacteria tuberculosis for guinea pigs following intratesticular
infection. Probl. tub. no.2373-73 '64. (MIRA 17:12)

1. Katedra mikrobiologii (zav. ... dozent: E.T. Tal'meyster [Talmeister,
E.]) Tartuukogo universitate.

L 103-1-67 RMT(1) 1JP(c)
W.R. TIR AP7003065

SOURCE CODE: UR/0023/66/000/002/0299/0301

AUTHOR: Rebane, K.; Sil'd, O.

ORG: Institute of Physics and Astronomy, Academy of Sciences Estonian SSR (Institut fiziki i astronomii AN EstSSR)

TITLE: Theory of the vibrational structure of the spectrum of a light impurity molecule

SOURCE: AN EstSSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 2, 1966, 299-301

TOPIC TAGS: luminescence spectrum, adiabatic approximation

ABSTRACT: An article by L. REBANE and T. SMAR in the same issue of this journal establishes the fact that there is a decrease in the half-width of the vibration sub-band of KBr-O₂ with an increase in the number n in the luminescence spectrum. The present article is intended to show that this fact may be explained as the effect of the interaction of local vibration with crystal vibrations if the "double adiabatic approximation" is used as the basis and a certain assumption is made as to the sign of an harmonic interaction between local and crystal vibrations. The authors note that the "double adiabatic approximation" is a general approach to the problem of a comparatively light impurity molecule in a heavy base and is apparently also effective in the case of any impurity centers if there is a local vibration with a frequency significantly exceeding the frequency of the remaining vibrations. The authors state that they hope to return to a detailed consideration of the "double adiabatic approximation" in subsequent publications.

Orig. art. has: 3 formulas. [JPRS: 39,040]

SUB CODE: 20 / SUEM DATE: 03Mar66 / ORIG REF: 004

Card 1/1 5B

24(5)

SOV/170-59-5-9/18

AUTHORS: Rebane, K.K., Rentel', A.A., Sil'd, O.I.

TITLE: On the Accuracy of Different Variants of the Franck-Condon Principle (O tochnosti razlichnykh variantov printsipa Franka-Kondona)

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 5, pp 60-69 (USSR)

ABSTRACT: The authors consider some problems in the application of the Franck-Condon principle, in particular the distribution of probabilities in electronic-vibrational transitions for vibrational levels with low quantum numbers. The main part of this investigation applies to a harmonic oscillator whose frequency does not change as a result of an electronic transition. In the first part of their paper the authors describe various methods of determining transitional probabilities, namely: the quantum-mechanical one and 3 forms of semi-classical treatment. In the quantum-mechanical treatment, the authors analyze existing formulae for probabilities of transition from the vibrational level of the n-number ground electronic state into that of the m-number excited electronic state. Using a Krivoglaz formulae [Ref 3] they calculate $W(n \rightarrow m)$ for $n = 0, 1$ and 2 for two values of the p_0 quantity which characterizes Stokes' Card 1/3

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losses in the number of quanta. The results of calculations are presented in Figures 2 and 3 in the form of the curves in which the $W(m)$ -values are plotted versus m . In the semi-classical treatment, the authors, while retaining a part of the classical Franck-Condon principle formulation, modify another part of it by making allowance for the quantum-mechanical distribution of coordinate. They present 3 different forms of semi-classical treatment: B, B1 and B2. The latter two are based on the paper of Dexter [Ref 12]. The second part of the present investigation deals with the applicability of the semi-classical approximation of the B-type in more detail. This approximation is based on the statement that the quantum-mechanical distribution of coordinates goes over into the classical one with an increase of the number of vibrational levels. Analyzing this statement the authors found that a so-called "energy error" ΔE grows with an increase of the m -number as it is seen from the following relation:

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$$|\Delta E| \leq m^{1/2} \hbar \omega$$

... , ..., ..., in which are
Soviet, 4 American, 1 German and 1 Italian.

ASSOCIATION: Gosudarstvennyy universitet, Institut fiziki i astronomii AN
ESSR (State University, Institute of Physics and Astronomy of

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550610003-0"

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9,4300 (1055, 1163, 1227, 1144)

2112
S/023/60/000/004/002/005
D221/D305

AUTHORS: Rebane, K., Candidate of Physico-Mathematical Sciences,
and Sil'd, O.

TITLE: On the theory of electron-vibrational spectra of
molecules and crystals

PERIODICAL: Akademiya nauk Estonskoy SSR. Izvestiya. Seriya
fiziko-matematicheskikh i tekhnicheskikh nauk,
1960, no. 4, 313-330

TEXT: This paper describes some investigations of electron-vibrational spectra with the method of moments previously used by M. Lax (Ref. 1: J.Chem.Phys, 20, 1952, 1752). The authors claim that this method does not suffer from the disadvantages of either the single-coordinate models or the method of quasi-independent normal vibrations. First, a simple derivation of equations for the moments of spectral bands arising as a result of electron-vibrational tran-

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sitions is given. The moment S_1 of order C of the spectral band is given by

$$S_1 = \sum_i n_i \sum_s (E_s - E_i)^1 W_{si}. \quad (5)$$

The Franck-Condon factor $W_{si} = \left[\int \psi_{IIIs}^*(x) M(x) \psi_{Ii}(x) dx \right]^2$; n_i is the number of systems in the initial vibrational level, number i; E_i and E_s are the energies of the initial and final vibrational levels respectively; and $M(x)$ is the electron matrix element; $\psi_{Ii}(x)$ and $\psi_{IIIs}(x)$ are vibrational weave functions in electron states I (initial) and II (final); and x denotes an assembly of all vibrational coordinates; i and s are respectively the collective vibrational quantum numbers. This is transformed into the following relation in terms of the Hamiltonian operators H_I and H_{II}

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$$\overline{S_l} = \sum_i n_i \sum_{k=0}^l (-1)^k C_i^k \int dx (\Psi_i^*(x) M^*(x) \hat{H}_n^{l-k} M(x) \hat{H}_i^k \Psi_i(x)). \quad (8)$$

whence the respective moments may be calculated. This formula has wide limits of applicability, since the adiabatic approximation is not required for its derivation, the vibrations are not described by normal coordinates, and the distribution of systems among the vibrational levels need not be in thermal equilibrium. The authors now proceed to consider the conditions for mirror symmetry of absorption and radiation bands in electron vibrational transitions, a problem which has already been studied by V.L. Levshin (Ref. 2: Fotolyuminestsentsiya zhidkikh i tverdykh veshchestv (Photoluminescence of Liquid and Solid Media) GITTL, M.-L., 1951, 96). There have been doubts whether the Levshin conditions are the only ones, for which mirror symmetry occurs. The statement of mirror symmetry is expressed as a relation between the moments of the bands which is then written in terms of Eq. (5). The equalities satisfying

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this relation are identical with the Levshin conditions. These conditions are examined, and expressed in the form: (i) for the system of the two adiabatic potentials, either a plane of symmetry or a center of symmetry in the dimension (x) must exist; (ii) the distribution function of vibrational levels must be the same in each state; and it is shown that these conditions, in addition to being sufficient, are also necessary for mirror symmetry. Next, the authors calculate the moments of the spectral bands of a harmonic oscillator, whose frequency changes during transitions, on the basis of Eq. (8). Having determined the first four moments of the absorption band, the same moments for the radiation band are derived by making the appropriate substitutions, and the moments for a system of independent harmonic oscillators are also presented. Finally, the relation between the contours of absorption and radiation bands for the case, in which the frequency of vibration changes during transitions, on the basis of Eq. (8). In this case, there is no mirror symmetry. Approximate equations are deduced for

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the ratios of the first three moments, which are estimated to be within the accuracy of experimental measurements, the general equation being

$$\frac{s_n^x(\mathcal{E})}{s_n^1(\mathcal{E})} = (-1)^n \left(\frac{p^x}{p^1} \right)^n.$$

The moments are taken relative to the electron transition energy \mathcal{E} , the superscripts α and β represent absorption and emission respectively, and p is the Stokes loss for the particular case. It is shown that this approximation may be used for multi-coordinate as well as simple models. There are 1 figure and 22 references: 19 Soviet-bloc and 3 non-Soviet-bloc. The references to the English language publications read as follows: M. Lax, J. Chem. Phys., 20, 1952, 1752; F.E. Williams, J. Phys. Chem. 57, 1953, 780; R. Kubo, Y. Toyozawa, Progr. Theor. Phys., 13, 1955, 160; G. Russel, C.

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On the theory of electron-...

Klick, Phys. Rev., 101, 1956, 1473.

ASSOCIATION: Institut fiziki i astronomii, Akademii nauk Estonskoy
SSR (Institute of Physics and Astronomy, Academy of
Sciences of the Estonian SSR)

SUBMITTED: March 19, 1960

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S/051/60/009/004/020/034
E201/E191

AUTHORS: Rebane, K.K., and Sil'd, O.I.

TITLE: A Relationship Between Electronic-Vibrational
Absorption Bands and Luminescence

PERIODICAL: Optika i spektroskopiya, 1960, Vol 9, No 4, pp 521-523

TEXT: Levshin gave in 1951 a mirror-symmetry law for
absorption and luminescence bands (Ref 1). The present note
establishes a relationship similar to that of Levshin for a
luminescence centre in a crystal or for a molecule, when
vibrational frequencies are affected by electronic transitions.

The paper is entirely theoretical.
There are 1 figure and 7 references: 6 Soviet and 1 English.

SUBMITTED: March 30, 1960

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26869
S/081/61/000/013/001/028
B105/B201

24.4000
AUTHORS:

Rebane K. K., Sil'd O. I.

TITLE:

Description of the transition probability distribution by
the method of moments

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 13, 1961, 9, abstract
13B53 (Tr. In-ta fiz. i astron. AN EstSSR, 1960, No. 12,
264 - 266)

TEXT: The following formula was obtained for the calculation of the moment
S₁ of the order 1 of the transition probability distribution in the quantum

system: $S_1 = \sum_{p=Q}^{1} (-1)^p \binom{1}{p} \left(\hat{P} \psi_n \right)^* \hat{H}_{II}^{1-p} \hat{P} \hat{H}_{II}^p \psi_n d\tau$ (\hat{P} - operator of the
perturbation causing the transition; \hat{H}_I and \hat{H}_{II} - Hamiltonians of the
initial and final states; ψ_n - wave function of the initial state). The
application of this formula in dipole approximation to an atom at l=1 leads
to the sum rule of oscillator forces. At other values of l or with another
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S/058/62/000/008/040/134
A061/A101

AUTHOR: Sill'd, O.

TITLE: Calculation of the electron-vibrating spectral band taking anharmonicity of the vibrations into account

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 40, abstract 8V281
("Tr. In-ta fiz. i astron. AN EstSSR", 1961, no. 15, 21 - 29; summary in English) /B

TEXT: The first four moments of the probability distribution of electron-vibrating transitions have been calculated in Condon's approximation for the multi-coordinate model of the luminescence center in crystals or molecules. In order to take account of the anharmonicity of the vibrations, the adiabatic potentials of the model are given in the form of expansions in power series including third power terms.

[Abstracter's note: Complete translation]

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SIL'D, O.I.

Recurrent formulae in calculating the distribution moments of transition probabilities. Opt. i spektr. 11
no.2:141-145 Ag '61. (MIRA 14:8)
(Probabilities)
(Nuclear reactions)